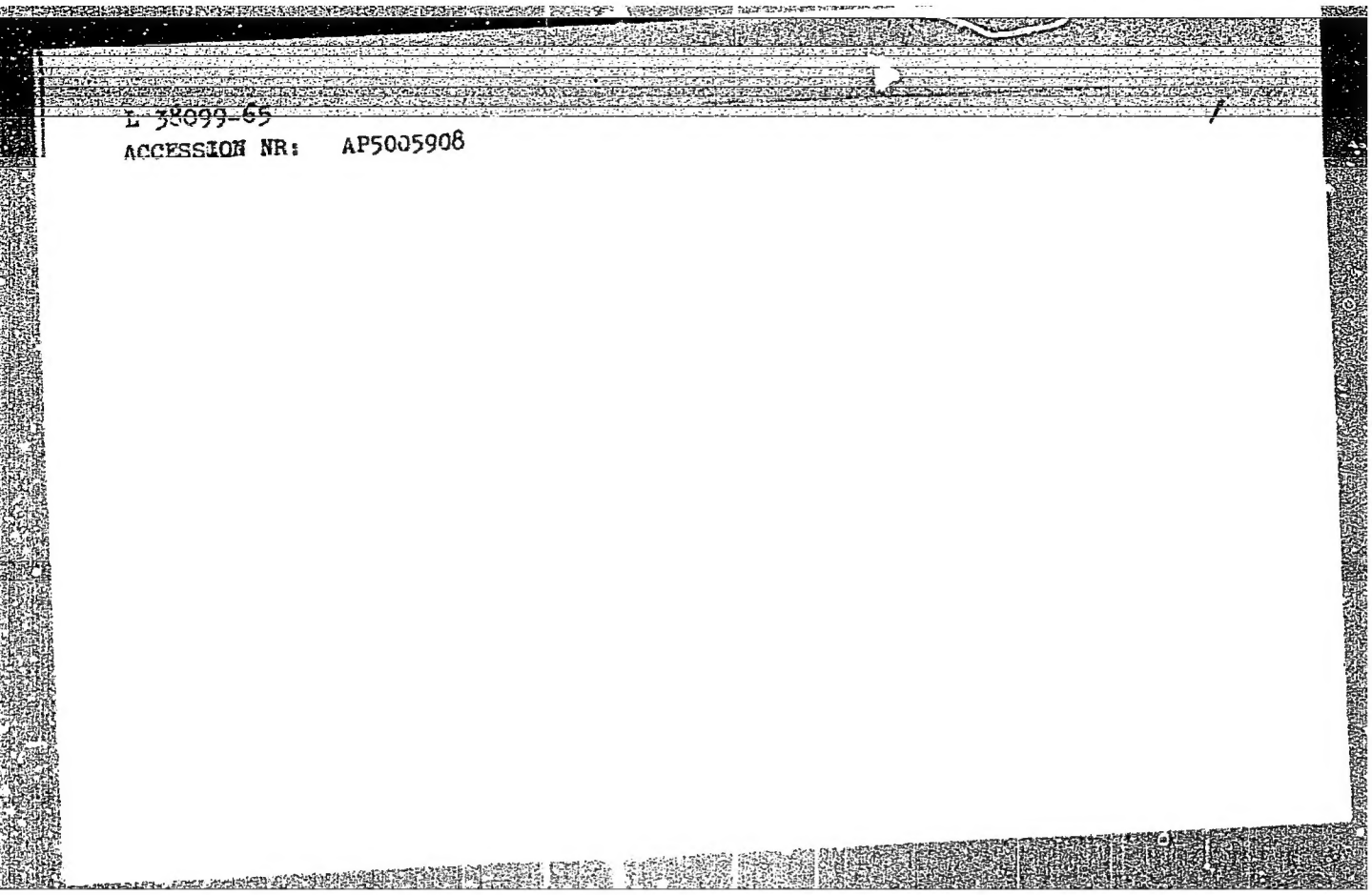


L 38099-65

ACCESSION NR: AP5005908

YUKHNOVSKIY, I.R. [IUkhnovs'kyi, I.R.]; TSYGANENKO, V.V. [TSyhanenko, V.V.]; VAVRUKH, M.V.

Mean energy of electron gas at absolute zero. Ukr. fiz. zhur. 10 no.2:135-146 F '65. (MIRA 18:4)

1. L'vovskiy gosudarstvennyy universitet.

TSYGANENKO, G.I.; TRISTAN, S.V.

Increasing the impact toughness of 30GSL and SL-2 steel at low temperatures. Lit.proizv. no.3:42-43 Mr '62. (MIRA 15:3)
(Steel--Hardening) (Metals at low temperatures)

Tsyganenko, G. I.

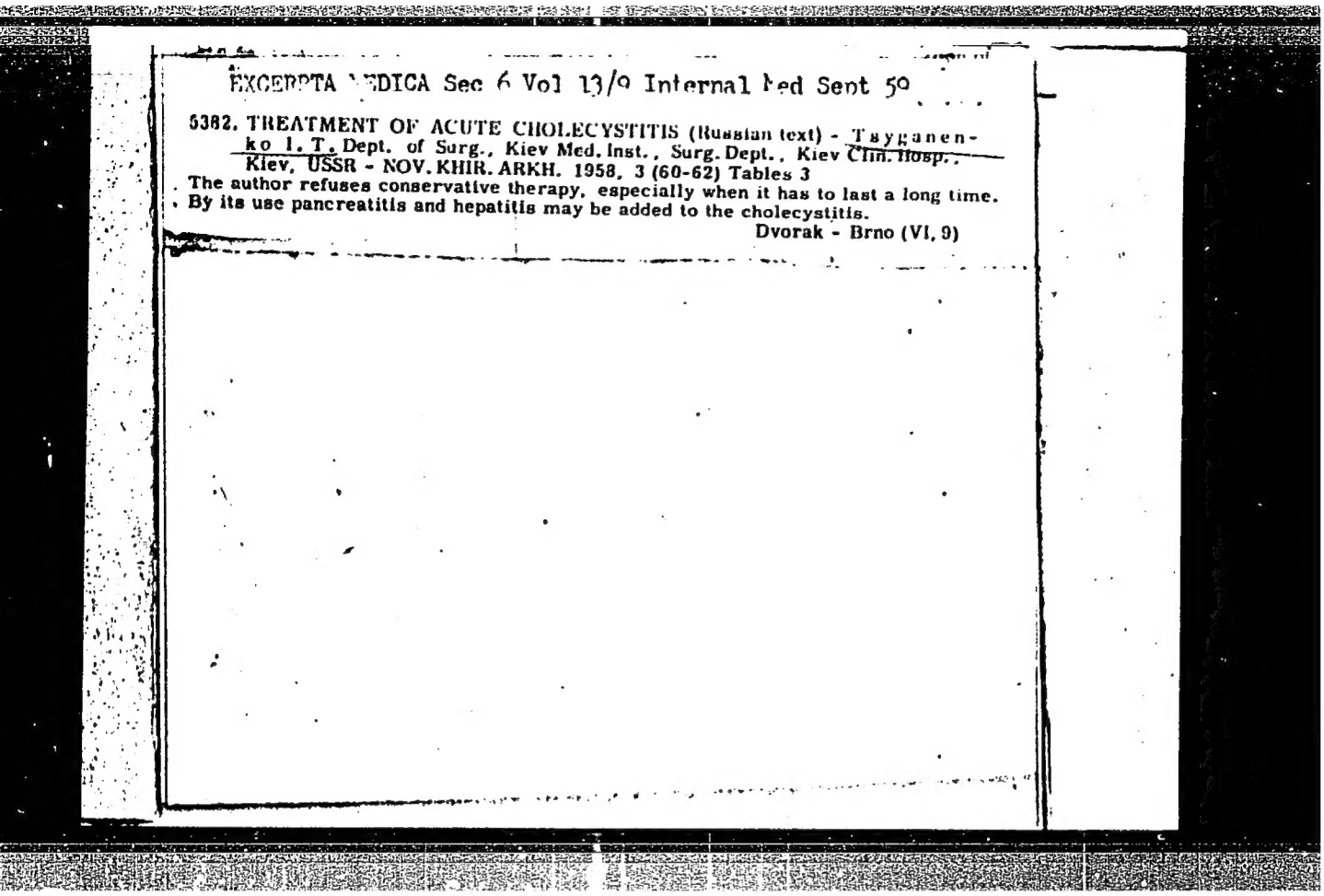
TSYGANENKO, G. I.

Facing material for iron and steel castings. Lit.proizv. no.9:27 S'55. (MLRA 8:12)

(Foundry machinery and supplies)

TSYGANENKO, G.I., AVRINSKIY, P.V., inzhener, redaktor; RUDENSKIY, Ya.V. tekhnicheskiy redaktor.

[Method in producing irregularly shaped steel castings] Parktika proizvodstva stal'nogo fasonnogo lit'ia. Kiev, Gos. nauchno-tekhn. izd-vo mashinostroit. lit-ry, 1954. 38 p. (MLRA 8:8)
(Steel castings)



EXCERPTA MEDICA Sec 6 Vol 13/9 Internal Med Sept 59

5382. TREATMENT OF ACUTE CHOLECYSTITIS (Russian text) - Tsyganenko I. T. Dept. of Surg., Kiev Med. Inst., Surg. Dept., Kiev Clin. Hosp., Kiev, USSR - NOV. KHIR. ARKH. 1958, 3 (60-62) Tables 3

The author refuses conservative therapy, especially when it has to last a long time. By its use pancreatitis and hepatitis may be added to the cholecystitis.

Dvorak - Brno (VI, 9)

SHCHEKIN, Rostislav Vladimirovich, dotsent, kand.tekhn.nauk; KOREVSKIY, Sergey Mikhaylovich, dotsent, kand.tekhn.nauk; BEM, Georgiy Yevgen'yevich, dotsent; TSYGANENKO, Gleb Nikolayevich, inzh.; ARTYUSHENKO, Mikhail Alipiyevich, inzh.; LOBAYEV, B.N., prof., doktor tekhn.nauk, red.; POLTORATSKAYA, E., red.; NOSINENKO, A., tekhn.red.

[Reference book on heating and ventilation in residential and public-building construction] Spravochnik po teplosnabzheniiu i ventiliatsii v grazhdanskom stroitel'stve. Kiev, Gos.izd-vo lit-ry po stroit. i arkhit.USSR, 1959. 846 p. (MIRA 13:4)

1. Deystvitel'nyy chlen Akademii stroitel'stva i arkhitektury USSR (for Lobayev).
(Ventilation) (Heating)

TSYGANENKO, I.T. (Kiyev, ul. Krutoy Spusk, d.7, kv. 10)

Treating acute cholecystitis. Nov.khir.arkh. no.3:60-62 My-Je '58.
(MIRA 11:9)

1. Kafedra obshchey khirurgii (zav. - prof. I.N. Ishchenko) Kiyevskogo meditsinskogo instituta i khirurgicheskoye otdeleniye Kiyevskoy gorodskoy klinicheskoy bol'nitsy im. Oktryabr'skoy revolyutsii.
(GALL BLADDER--DISEASES)

TSYGANENKO, I.T.

Diagnostik significance of cholecystography. Vrach.delo no.6:641 Je '58 (MIRA 11:7)

1. Kiyevskaya gorodskaya klinicheskaya bol'nitsa im. Oktyabr'skoy revolyutsii i kafedra obshchey khirurgii (zav.- zasl. deyatel' nauki, prof. M.I. Kolomiychenko) Kiyevskogo meditsinskog instituta.
(GALL BLADDER--RADIOGRAPHY)

TSYGANENKO, I.T.

Significance of determining diastase in blood and urine and making a sugar loading test for the diagnosis of pancreatis complicating the clinical course of acute cholecystitis. Vrach. delo no.11:41-45 N '61. (MIRA 14:11)

1. Kafedra obshchey khirurgii (zav. - prof. M.I.Kolomiychenko) Kiyevskogo meditsinskogo instituta.
(GALL BLADDER--DISEASES) (PANCREAS--DISEASES)

TSYGANENKO, I. T., Cand. Medic. Sci. (diss) "Clinical-anatomic Comparisons in Severe Cholecystitises," Odessa, 1961, 13 pp. (Odessa Med. Inst.) 300 copies (KL Supp 12-61, 289).

TSYGANENKO, I.T.

Microflora and pathoanatomical changes in the gall bladder in acute cholecystitis. Vrach.delo no.10:59-63 O '60. (MIRA 13:11)

1. Kafedra patologicheskoy anatomii (zav. - prof. Ye.I.Chayka) i obshchey khirurgii (zav. - prof. I.N.Ishchenko) Kiyevskogo meditsinskogo instituta i khirurgicheskoye otdeleniye Kiyevskoy gorodskoy bol'nitsy.
(GALL BLADDER--DISEASES)

TSYGANENKO, O. D., Cand Med Sci -- (diss) "A Conservative Penecillin Treatment for Pulpitis," Khar'kov, 1960 (Ministry of Public Health UkSSR. Khar'kov State Medical Institute); 200 copies; free. (KL, 23-60, 128)

GOLOVINA, N.F. (Khar'kov); TSYGANENKO, O.D. (Khar'kov)

Study of the immunobiological state in paradentosis according to the phagocyte count and the content of lysozyme in the saliva. Probl.stom. 6:73-78 '62. (MIRA 16:3)
(GUMS--DISEASES) (SALIVA) (PHAGOCYTOSIS) (LYSOZYME)

VOLYNSKIY, S.M., dots. (Khar'kov); TSYGANENKO, O.D., assistent (Khar'kov)

Condition of the periodontium in patients with diseases of the digestive organs; preliminary report. Probl.stom. 4:161-165 '58. (MIRA 13:6)

(GUMS--DISEASES) (DIGESTIVE ORGANS--DISEASES)

TSYGANENKO, O.D.

Combined use of penicillin and gramicidin in pulpitis. Probl. stom. 5:156-159 '60. (MIRA 15:2)

1. Khar'kovskiy meditsinskoy stomatologicheskiy institut.
(PENICILLIN) (GRAMICIDIN) (TEETH--DISEASES)

(N) (N)

ACC NR: AM5027093 Monograph UR/

Karpov, Remir Nikolayevich; Maslenok, Boris Arkad'yevich; Tsyganko, Oleg Leonidovich

Control drive mechanisms for nuclear power reactors on ships (Privody reguliruyushchikh organov sudovykh atomnykh energeticheskikh reaktorov) Leningrad, Izd-vo "Sudostroyeniye," 1965. 250 p. illus., biblio., 2000 copies printed.

TOPIC TAGS: nuclear powered ship, nuclear power technology, nuclear engineering, nuclear reactor control equipment

PURPOSE AND COVERAGE: This book is intended for engineers and technicians engaged in the design and use of nuclear reactor control drives. It may also be of use to students in schools of higher education studying marine nuclear power systems. Problems of designing control drive mechanisms for marine nuclear reactors are covered and the requirements for these devices are discussed. Existing designs are described, and recommendations for the design and choice of materials for individual units and parts are given. Methods of kinematic, reliability, and heat calculations, methods of constructing individual units, and methods and means of testing the experimental drives are covered.

UDC: 621.491—52:629.12

Card 1/3

ACC NR: AM5027093

TABLE OF CONTENTS:

Card 2/3

ACC NR: AM5027093

SUB CODE: 18, 13/ SUBM DATE: 21Jun65/ ORIG REF: 073/ OTH REF: 016

Card 3/3

TSYGANENKO, P.F. [TSyhanenko, P.F.], assistent

Experimental study and clinical tests of synthetic oxytocin, a new stimulator of sexual activity. Ped., akush. i gin. 22 no.6:63-67 '60. (MIRA 14:10)

1. Kafedra akusherstva i ginekologii (zaveduyushchiy - dotsent O.Kh. Babadagli) pediatricheskogo i sanitarno-gigiyenicheskogo fakul'tetov i kafedra normal'noy fiziologii (zaveduyushchiy - prof. Ya.P.Sklyarov) L'vovskogo gosudarstvennogo meditsinskogo instituta (direktor - prof. L.N.Kuzmenko).

(OXYTOCIN) (APHRODISIACS)

TSYGANENKO, P.F.

Comparative evaluation of the influence of pituitrin P, pituitrin M, and synthetic oxytoxin on the contractile function of the uterus and on blood pressure. Farm. i toks. 24 no.4:475-479 Jl-Ag '61. (MIRA 14:9)

1. Kafedra akusherstva i ginekologii (zav. - dotsent A.Kh.Bab[redacted]) pediatricheskogo i sanitarno-gigiyenicheskogo fakul'tetov, kafedra farmakologii (zav. - prof. A.A.Gavrilyuk) i kafedra normal'noy fiziologii (zav. - prof. Ya.P.Sklyarov) L'vovskogo gosudarstvennogo meditsinskogo instituta.

(BLOOD PRESSURE) (UTERUS)
(PITUITARY EXTRACT) (OXYTOCIN)

KRUPSKIY, N.K.; TSYGANENKO, O.Yu.

Studying ion exchange processes in soils under dynamic conditions. Pochvovedenie no.8:103-106 Ag '63. (MIRA 16:9)

1. Ukrainskiy nauchno-issledovatel'skiy institut pochvovedeniya imeni A.N.Sokolovskogo.

TSYGANENKO, Yu., podpolkovnik; VOYTYUK, S., mayor

Before field training. Voen. vest. 43 no.6:85 Je '63.
(MIRA 16:6)
(Military education)

KOSTOGRYZOV, V.S., kand.tekhn.nauk; MIROSHNICHENKO, M.V., inzh.; TSYGANIKOV, O.L., inzh.

New method for measuring radiation heat flux. Avtom.i prib. no.2: 74-77 '61. (MIRA 14:12)
(Heat--Radiation and absorption--Measurement)

CHEPKIY, L.P.; TSYGANIY, A.A.

Changes in the minute volume of the heart and in some indices of the hemodynamics during a mitral commissurotomy. Grud. khir. 6 no.1:12-16 Ja-F '64. (MIRA 18:11)

1. Klinika grudnoy khirurgii (zav. - chlen-korrespondent AMN SSSR prof. N.M. Amosov) Ukrainskogo nauchno-issledovatel'skogo instituta tuberkuleza i grudnoy khirurgii imeni akademika F.G. Yanovskogo (dir. - dotsent A.S. Mamolat), Kiyev. Adres avtorov: Kiyev, Spusk Stepana Razina, d.7, Tuberkuleznyy institut. Submitted June 10, 1963.

BRUNINA, Yu.Z.; TSYGANKIN, A.P.

Subscriber's electronic line equipment. Elektrosviaz' 12 no.8: 55-59 Ag '58. (MIRA 11:8)
(Telephone, Automatic--Equipment and supplies)

IVANOVA, O.N.; KOKHANOVA, Z.S.; TSYGANKIN, A.P.

Program control at automatic telephone exchanges.
Elektrosviaz' 15 no.5:41-50 My '61. (MIRA 14:6)
(Telephone, Automatic)
(Automatic control)

LYUSTERNIK, L.A., red.; KLIMOV, G.P., red.; TSYGANKIN, A.P., red.; USHAKOV, V.B., doktor tekhn. nauk, red.; BARANOVA, Z.S., inzh., red.izd-va; GORDEYEVA, L.P., tekhn. red.

[Computer mathematics and computer engineering] Voprosy vychislitel'noi matematiki i vychislitel'noi tekhniki. Moskva, Mashgiz, 1963. 431 p. (MIRA 16:6)

1. Chlen-korrespondent Akademii nauk SSSR (for Lyusternik).
(Electronic computers)

ALIMOV, Ye.V.; BRYUKHOVICHENKO, P.I.; TSYGANKO, L.Z.

New technological process of manufacturing large-size castings for power machinery by assembling molds from core blocks in a special jacket. Lit. proizv. 5:3-4 My '64. (MIRA 18:5)

KADNIKOV, Vladimir Gennad'yevich; TSYGANKO, L.Z., inzh., retsenzent; LIPNITSKIY, A.M., red.; RUSSIYAN, S.V., inzh., red.; KUREPINA, G.N., red. izd-va; PETERSON, M.M., tekhn. red.

[Machine molding] Mashinnaia formovka. Pod obshchei red. A.M.Lipnitskogo. Moskva, Gos. nauchno-tekhn. izd-vo mashinostroit. lit-ry, 1961. 68 p. (Bibliotechka liteishchika, no.4) (MIRA 14:10)
(Machine molding (Founding))

BERESLAVSKIY, L.D.; TSYGANKO, L.Z.; EDEL'GAUZ, G.Ye.

Evaluating the level of industrial mechanization in foundries.
Lit.proizv. no.7:8-10 Jl '61. (MIRA 14:7)
(Foundries--Equipment and supplies)

PHASE I BOOK EXPLOITATION SOV/5648

Sokolov, Aleksey Nikolayevich, ed.

Mekhanizatsiya i peredovaya tekhnologiya liteynogo proizvodstva (Mechanization and Advanced Processing in Foundries) [Leningrad] Lenizdat, 1961. 236 p. 2,000 copies printed.

Ed.: Ye. V. Yemel'yanova; Tech. Ed.: I. M. Tikhonova.

PURPOSE: This collection of articles is intended for technical personnel, foremen, and skilled workmen of foundries. It may also be of use to staff members engaged in the mechanization of production operations.

COVERAGE: The collection contains articles discussing the experience of a number of Leningrad plants and engineering and design organizations in mechanizing foundry processes and in applying advanced techniques to the manufacture of castings. No personalities are mentioned. Some

Card 1/5

articles are accompanied by references. References are all Soviet.

TABLE OF CONTENTS:

Mechanization and Advanced (Cont.) SOV/5648

AVAILABLE: Library of Congress (TS233. S55)

VK/wrc/bc
11-15-61

Card 5/5

TSYGANKO, L. Z.

PHASE II - BOOK REVIEW EV-2

Sergeyev, Pavel Sergeyevich

Shtampovka zhidkikh tsvetnykh metallov i splavov (Compression Molding of Molten Nonferrous Metals and Alloys) Leningrad, Sudpromgiz, 1957. 86 p. 3,000 copies printed.

Editors: Responsible Ed.: Tsyganko, L.Z.; Ed.: Mishkevich, G.I.; Technical Ed.: Levochkina, L.I.; Proofreader: Ryzhikova, M.G.

INTRODUCTION. The method of "compression molding" of molten metals as described in this book is claimed by the Soviets as one of their latest developments in the field of pressing and casting nonferrous metals, especially zinc, copper and aluminum alloys. The author states that this method requires very little in the way of special equipment to produce castings of complex configuration with better mechanical properties, greater dimensional accuracy and better surface quality than could be obtained by other casting methods. It is further claimed that "compression molding" combines the advantages of forging and casting and presents no serious drawbacks. Compression castings,

Card 1/22

Compression Molding of Molten (Cont.)

because of their great density, are used in many ways but have found a special application in the high-pressure pneumatic and hydraulic systems of Soviet naval vessels. The "compression molding" method is also used in the manufacture of turbine blades, and would lend itself well to the production of cylindrical and conical shapes, such as cones for armor-piercing shaped charges; it might also find an application in the casting of aircraft control components. The principles involved in "compression molding" of molten metals are well known as this method is similar to that used in compression molding of thermosetting plastics. For this reason the term "compression molding" was used to translate the Russian term "shtampovka" [literally: pressing (of molten metals)]. According to available information compression molding of molten metals has not so far been used in this country. From the above it is obvious that this casting method with its reputed numerous advantages and applications may well be of military importance. The contents of this book are reviewed below chapter by chapter.

Ch. I. Properties of Nonferrous Alloys

In this chapter the author deals with the properties of alloys used in casting: flowability, shrinkage, liquation, gas absorption and oxidation. He discusses at length the problems connected with

Card 2/22

Compression Molding of Molten (Cont.)

oxidation of metals, methods of deoxidation and various means of removing solid oxides from the molten metal. The last part of the chapter is devoted to melting processes and the preparation of the charge. There are numerous tables giving the composition and properties of various standard copper and aluminum alloys.

Ch. II. Compression Molding of Molten Metal

This chapter contains an extensive description of the method of compression molding of molten metals. For this reason this chapter deserves thorough coverage and as much data and details are given as this coverage permits. Some of the tables have been reproduced without change. Compression molding of molten metal is performed in this manner:

1. A carefully measured amount of molten metal is poured directly with a ladle into an open preheated and coated die cavity.

2. Pressure is applied to the metal by a descending plunger, displacing some of the metal by pressing it tightly against

Card 3/22

Compression Molding of Molten (Cont.)

walls of the cavity and forcing it upward. The pressure is maintained until crystallization of the metal is completed. The plunger is then withdrawn and the casting ejected. See Figs. 1 to 3, cards 19/22, 20/22, and 21/22.

To insure smooth operation, the following points should be observed:

A. Preheating of dies. To prevent thermal stresses and to obtain good surface finish of castings, the dies must be preheated. Depending on the metal used, the optimum temperatures vary from 60° to 180°C.

B. Measuring of metal. The exact metering of molten metal is very important in this process. An insufficient amount of metal may cause defects due to shrinkage. An overdose of metal will produce a casting of high density but the vertical dimensions will be oversize and will require machining down to size. Furthermore, it puts excessive strain on the press and the die. For hollow cylindrical shapes where the bottom web will be removed by machining, metering is done best by ladle.

Card 4/22

Compression Molding of Molten (Cont.)

C. Application of pressure. Pressure must be applied as soon as the die cavity is filled. Optimum plunger speed is given as 0.2 - 0.1 meters per second. Higher speeds (0.8 - 1.0 m/sec) cause a turbulent flow of metal, and entrapped gas has no time to escape. For casting complex shapes, such as multiple valve housings, machines with more than one plunger operating in different planes may be employed. The metal should be kept in the closed die under pressure for definite lengths of time. The following figures are given: For parts 100 mm. thick the time should be at least 10 seconds for each 10 mm. of thickness; for each additional 10 mm. over 100 mm, 15 seconds should be added.

D. Pressure. To insure good density and surface quality and to fill any cavity due to shrinkage, the amount of pressure should be carefully calculated. Depending on the alloy used, the shape of the casting, and the size of the plunger, the pressure varies from 600 to 5,000 kg./sq. cm.

Some technical data of a typical compression molding process are given as follows:

Card 5/22

EV-2

Compression Molding of Molten (Cont.)

Material used: LN 56-3 (Soviet designation of a copper-base alloy)

Part: Valve housing

Casting data:

1.	Volume of metal cast	3298 cubic cm.
2.	Temperature of metal in furnace	1050-1080°C.
3.	Die temperature before casting	100-180°C.
4.	Temperature of metal during casting	1020-1050°C.
5.	Speed of plunger	0.07 meter/sec.
6.	Metal held in die	3 minutes
7.	Specific pressure	1200 kg/sq.cm.

Card 6/22

Compression Molding of Molten (Cont.)

Below some comparative figures are reproduced showing savings in metal and man-hours achieved by this new method in one of the Soviet ship yards which manufactures a valve housing to accommodate 14 valves. It is claimed that this part produced by compression molding withstands hydraulic test-pressures up to 300 kg/sq.cm.

	Metal Used in Forging	Compression molding	Saving
Liquid metal required in kg.	1500	320	1180
Weight of blank, in kg.	850	280	570
Man-hours required	25	20	5
Man-hours required for machining	650	350	300

Card 7/22

Compression Molding of Molten (Cont.)

Ch. III. Die Design

The author states that the compression method requires a special approach to the design of equipment. He gives practical suggestions for the design of dies for special parts, and mentions various problems which may arise in connection with this work. Instructions are given for the preparation of test samples and testing procedures.

Ch. IV. Equipment for Compression Molding

In this chapter the author is concerned with the equipment used in compression molding. Technical data pertaining to the presses currently used in Soviet shipyards are reproduced below. These are believed to be standard pieces of equipment for this kind of work. The author states that any conventional hydraulic or mechanical press may be used for compression molding of metal. A hydraulic press should be however of at least 10-ton capacity. Mechanical presses are used for smaller castings only. Since the special machines for compression molding are not yet currently produced by Soviet industry,

Card 8/22

Compression Molding of Molten (Cont.)

conventional equipment is generally being adapted for this purpose. Technical data are given below for a conventional hydraulic press to be used for compression molding and also the characteristics of an experimental model of a universal casting machine specially designed for compression molding of molten metals.

Conventional Hydraulic Press:

Vertical plunger pressure	750 tons
Horizontal plunger pressure	150 tons
Vertical plunger stroke	1000 mm.
Horizontal plunger stroke	1600 mm.
Vertical plunger speed under load	33 mm/min.
Horizontal plunger speed under load	75 mm/min.
Maximum hydraulic pressure	300 kg/sq.cm.

EV-2

Compression Molding of Molten (Cont.)

Universal ULM Hydraulic Machine for Compression Molding; Experimental Model (See Figure No. 4 - Card 22/22)

Vertical plunger pressure	30 tons
Vertical plunger pressure with pressure transmitter	60 tons
Vertical plunger pressure in upward movement	14 tons
Vertical plunger pressure in upward movement with pressure transmitter	28 tons
Horizontal plunger pressure, forward movement	60 tons
Stroke of vertical plunger	450 mm.
Stroke of horizontal plunger	350 mm.
Pressure in the hydraulic system	120 kg/sq.cm.

Card 10/22

Compression Molding of Molten (Cont.) EV-2

CONCLUSION: In this chapter the author deems it worthwhile to compare the new compression molding method with forging techniques from the point of view of economy and lists the following advantages of the new method over the old one:

1. No need for preformed stock
2. Thin and heavy sections can be formed with equal ease
3. Less mechanical wear on dies
4. Good dimensional accuracy during the whole service life of the die
5. Up to 66.6 percent savings in metal used (in comparison with centrifugal casting of nonferrous metals)
6. Little or no machining required
7. Considerable savings in man-hours

Card 11/22

Compression Molding of Molten (Cont.)

8. Lower operational expenses

9. Average total savings per ton of nonferrous metal used: 5,920 rubles

The author gives the following comparative figures showing the savings in metal obtained by the new method in the manufacture of different parts:

Part produced	Metal used in kilograms	
	Old method	Compression molding
S 31-2	65.0	18.0
ZM 822	50.5	14.5
W 497	71.0	27.0
S 316	100.0	44.0
W 36	36.0	16.0

Card 12/22

Compression Molding of Molten (Cont.)

The author enumerates various defects in casting produced by this method stating, however, that these defects may be kept to a minimum by the use of proper techniques. Some of the defects are: incomplete filling of die cavity due to low temperature of metal and errors in metering, inaccuracy due to die wear, distortion of the casting shape, gas cavities due to heavy lubrication of dies, and others. The last part of the chapter is devoted to safety problems. The author acknowledges the assistance of I. E. Gorshkov, Candidate of Technical Sciences, in the preparation of the manuscript. Reference is also made to the experimental work carried out by VPTI (The All-Union Design and Planning Technological Institute).

SUMMARY. The conclusion may be reached from this book that the new method for compression molding of metal does have advantages which may render some forging methods obsolescent. To recapitulate, some of the reputed advantages are:

1. Castings of complex configuration with high mechanical properties may be successfully produced

Card 13/22

Compression Molding of Molten (Cont.)

2. High dimensional accuracy
3. High surface quality
4. Lack of porosity and cavities and uniform fine grained dense structure providing for high-pressure service
5. 55 to 75 percent less metal required as compared with other methods
6. Little or no machining required
7. 2 to 3 percent loss of metal by weight during casting
8. No special equipment required. Conventional hydraulic, mechanical or even hand presses may be used
9. Less wear on dies
10. Alloys and metals difficult to cast by ordinary methods can be successfully used

Card 14/22

Compression Molding of Molten (Cont.) EV-2

At this point it may be worthwhile to make a digression and compare the compression molding method to other methods as described by V.M. Plyatskiy in his book Lit'ye pod davleniyem (Pressure Casting). This book deals extensively with the compression molding method and is highly recommended if this subject is to receive further attention. The following advantages were quoted:

1. No need of preformed stock
2. High-density castings
3. Many kinds of nonferrous metals can be used
4. Far less energy required to produce the part
5. Thin (minimum 1.5 mm.) and heavy sections can be formed with equal ease
6. Less wear on dies permits close dimensional tolerances over a longer period of time
7. The author claims that in certain instances a surface finish of grade 11 can be obtained (in the Soviet classification of 14 grades)

Card 15/22

Compression Molding of Molten (Cont.) EV-2

The compression molding method differs also in some respects from the injection molding method. During the initial stages, however, when the pressure is applied by the plunger, the conditions are somewhat similar. As soon as the die cavity is filled under pressure, the metal flow comes momentarily to a standstill causing hydraulic hammer. This hydrodynamic pressure is instrumental in forming the sharp contour of the casting, and it also helps to densify the metal. Hydraulic pressure is less than in injection molding, but is more effectively applied as it acts on the inner and outer surface of the casting and is not dissipated by the frontal impact as is the case in injection molding. The hydrodynamic pressure lasts only for a fraction of a second. The pressure then becomes constant and the actual process of "pressing" begins. The full pressure of the press acts on the metal still in a plastic or semi-plastic state, densifying it in the process of crystallization under pressure, and depending on the specific pressure applied, the metal is further densified during the subsequent plastic deformation. In the compression method the metal travels a shorter distance and therefore maintains its flowability at a lower pressure. No metal is wasted for risers which in some cases take up as much as 50 to 300 percent of the metal by weight used for the casting. The author stresses the point that a variety of nonferrous metals, primarily copper and aluminum and alloys of these metals, can be used to produce high-integrity parts. The author adds that in the casting of

Card 16/22

Compression Molding of Molten (Cont.)

thin-walled and long cylindrical shapes from aluminum and zinc alloys, the final stage of the process is similar to backward extrusion and gives a high surface quality (Grade 1-11). This compression method of molding metal is reported to be a standard procedure in Soviet shipyards. The high density of these castings is said to make them impermeable to gases and liquids at high pressures. Considering these characteristics, it should be possible to use compression-molded parts in other fields employing pneumatic and hydraulic systems such as aircraft, servomechanisms, etc. Next to the manufacture of turbine and compressor blades, cones for shaped charges, etc., this method appears to be suitable for the manufacture of high-integrity aircraft control components, which are presently produced by some American aircraft concerns using ordinary casting methods which present some manufacturing problems. As stated before, the principles of this casting method are well known and are applied in compression molding of thermosetting plastics, but there is a lack of definite information that this method is currently used in the United States to produce copper-and aluminum-alloy parts. This book contains numerous diagrams, tables, and experimental data to facilitate any experiments which may be conducted to check the advantages of this

Card 17/22

method. In view of the advantages enumerated above for this method and the field of application it has found in the USSR (which seems to be partly of a military nature), it is believed that this method of compression molding of molten metal merits further serious investigation.

AVAILABLE: Library of Congress (TS 239.S4)

Card 18/22

GO/eag
8-5-58

Compression Molding of Molten (Cont.) EV-2

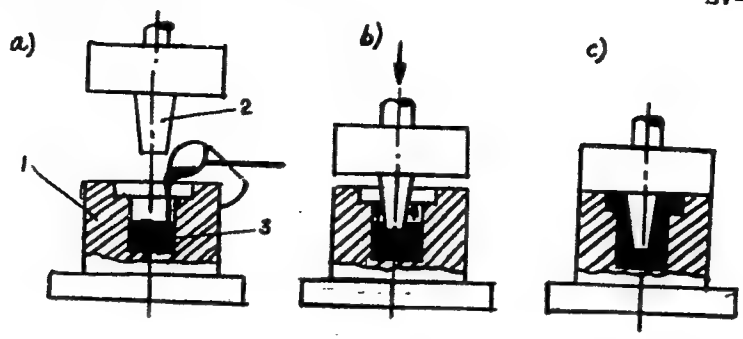


Fig. 1 - Schematic diagram showing the method of compression molding of molten metal. a) Pouring a metered amount of molten metal b) Initial stage of pressing c) Final stage of pressing

1) Die 2) Plunger 3) Molten metal

Card 19/22

Compression Molding of Molten (Cont.) EV-2

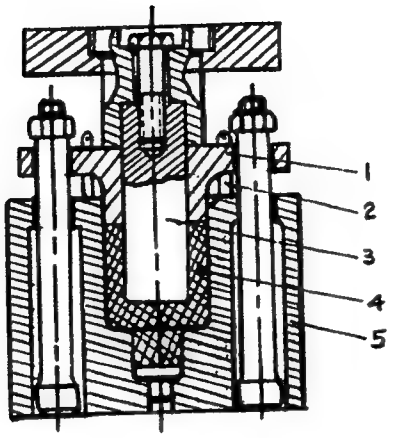


Fig. 2 - Cross section of a die for a sliding block casting.

1) Sliding head
2) Guide pins
3) Plunger
4) Molten metal
5) Die block

Card 20/22

Compression Molding of Molten (Cont.) EV-2

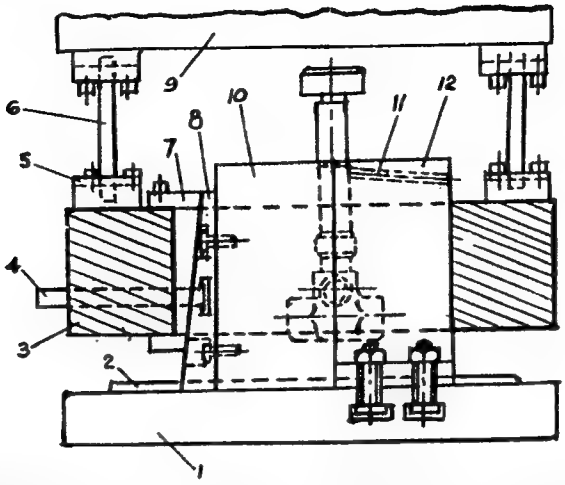


Fig. 3 - Diagram of a standard die for compression molding of molten metal used with a conventional hydraulic press for the manufacture of a multiple valve housing.

1) Lower platen 2) Key 3) Locking ring 4) Plunger 5) Clamps 6) Tie rods 7 & 8) Wedges 9) Upper platen 10) Movable die 11) Taper gutter 12) Stationary die

Card 21/22

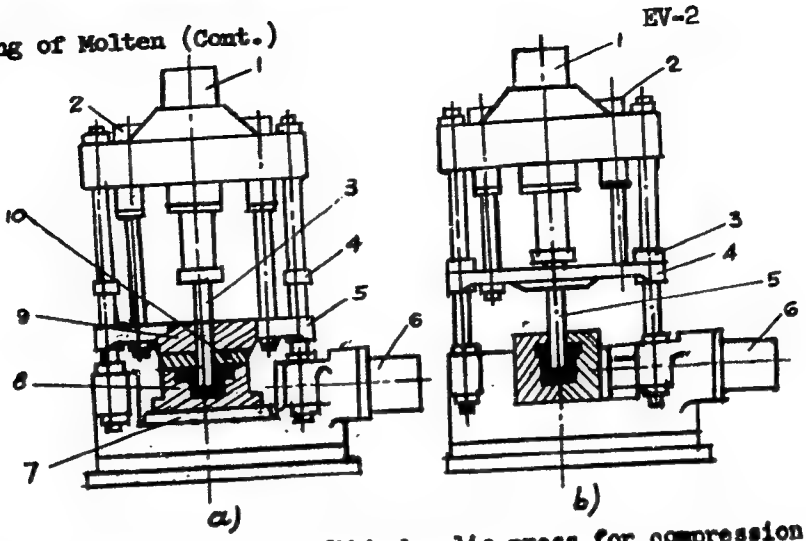


Fig. 4 - Schematic diagram of the universal ULM hydraulic press for compression molding of molten metal:
a) with horizontal parting line
1. Main vertical cylinder 2. Auxiliary side cylinder 3. Plunger of main cylinder 4. Guide rods 5. Sliding head 6. Horizontal cylinder 7. Base platen 8. Stationary die 9. Movable die 10. Die cover
b) with vertical parting line
1. Main vertical cylinder 2. Auxiliary side cylinder 3. Guide rods 4. Sliding head 5. Plunger of main cylinder 6. Horizontal cylinder

AMIRASLANOV, A.A.; BRITAYEV, M.D.; BYBOCHKIN, A.M.; ZENKOV, D.A.; TAKHOV, A.G.; TSYGANKO, N.I.; SHCHERBAKOV, A.V.; KREYTER, V.M., glavnyy red.; SHATALOV, Ye.T., zamestitel' glavnogo red.; YEROFEYEV, B.N., red.; ZENKOV, D.A., red.; KRASNIKOV, V.I., red.; NIFONTOV, R.V., red.; SMIRNOV, V.I., red.; KHRUSHCHOV, N.A., red.; YAKZHIN, A.A., red.; VERSTAK, G.V. red. izd-va; AVERKIYEVA, T.A., tekhn. red.

[Prospecting for copper, lead, and zinc deposits] Razvedka mestorozhdenii medi, svintsa i tsinka. Moskva, Gos. nauchno-tekhn. izd-vo lit-ry po geol. i okhrane nedr, 1957. 135 p. (Metodicheskie ukazaniia po proizvodstvu geologo-razvedochnykh rabot, no.10). (MIRA 11:4)
(Ore deposits) (Prospecting)

TSYGANKO, V.I.

KOVALEV, F.I. [deceased]; TSYGANKO, V.I., PAVLUTSKAYA, Ye.I., redaktor; GUROVA, O.A., tekhnicheskiy redaktor

[Instructions for applying the classification of reserves to copper deposits] Instruktsiia po primeneniiu klassifikatsii zapasov k mestorozhdeniiam medi. Moskva, Gos.nauchno-tekhn.izd-vo lit-ry po geol. i okhrane nedr, 1954. 25 p. (MLRA 10:10)

1. Russia (1923- U.S.S.R.) Gosudarstvennaya komissiya po zapasam poleznykh iskopayemykh.
(Copper ores)

KARPOV, Remir Nikolayevich; MASLENOK, Boris Arkad'yevich; TSYGANKO, Oleg Leonidovich; BESKURNIKOV, A.I., inzh., retsenzent; SULOYEV, A.V., kand. tekhn. nauk, retsenzent; AL'KHOVICH, A.V., nauchn. red.; KIL'VEYN, G.S., red.

[Drives of the control system of power-generating marine nuclear reactors] Privody reguliruiushchikh organov sudovykh atomnykh energeticheskikh reaktorov. Leningrad, Sudostroenie, 1965. 250 p. (MIRA 19:1)

TSYGANKOV, A.

Conference on the formation of local structures and the tectonic pattern of the lower Volga Valley. Geol. nefti i gaza 6 no.1:60-61 Ja '62. (MIRA 15:1)
(Volga Valley--Geology, Structural)

TSYGANKOV, A.; KOTOV, R., agronom po zashchite rasteniy; NEYPERT, Yu.

Model plant protection farms. Zashch. rast. ot vred. i bol. 10 no.3:11-15 '65. (MIRA 19:1)

1. Nachal'nik Bryanskoy stantsii zashchity rasteniy (for TSygankov).
2. Sovkhoz "Mar'inskiy", Brasovskogo rayona (for Kotov).

TSYGANKOV, A.A., inzh.

Standardizing the dimensions of frames for tractors with the multiple-type units of hydraulic systems. Trakt. i sel'khozmash. no.6:17-18 Je'64 (MIRA 17:7)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut sel'skokhozyaystvennogo mashinostroyeniya.

TSYGANKOV, A.A.

Combination die for manufacturing caps. Mashinostroitel' no.5:24 My '65. (MIRA 18:5)

PETROV, O.L.; TSYGANKOV, A.A.

Use of anodized aluminum shells. Lit. proizv. no.1:38 Ja '62. (MIRA 16:8)

(Shell molding (Founding))

TSYGANKOV, A.A.

Data on seasonal and growth dynamics of Coccidia of camels in Kazakhstan. Izv.AN Kazakh.SSR.Ser.paraz. no.7:41-48 '49.(MLRA 9:5)
(Kazakhstan--Coccidiosis) (Parasites--Camels)

TSYGANKOV, A.A.

Dynamics and paths of the infection of camels with Coccidia.
Trudy Inst.zool.AN Kazakh.SSR 3:140-150 '55. (MLRA 9:12)
(Camels--Diseases and Pests)
(Alma-Ata Province--Coccidiosis)

TSYGANKOV, A. A.

14-57-6-12719

Translation from: Referativnyy zhurnal, Geografiya, 1957, Nr 6, p 132 (USSR)

AUTHOR: Tsygankov, A. A.

TITLE: Coccidia on Camels of Western Kazakhstan (K faune koktsidiy verblyudov Zapadnogo Kazakhstana)

PERIODICAL: Tr. In-ta zool. AN KazSSR, 1956, Vol 5, p 192

ABSTRACT: A total of 326 camels of western Kazakhstan were studied for coccidia infestation. It was established that two species of coccidia were present: Eimeria cameli (infesting 34.3 percent), and E. kazachstanica (23.6 percent). It was also shown that the intensity of infestation varied with the age of the camel.

I. Ya.

Card 1/1

TSYGANKOV, A. A., PAICHUK, N. G. and BALBAYEVA, Z. A.

"On the Specificity of Coccidia of Sheep, Goats and Male Saiga."

Tenth Conference on Parasitological Problems and Diseases with Natural Reservoirs, 22-29 October 1959, Vol. II, Publishing House of Academy of Sciences, USSR, Moscow-Leningrad, 1959.

Kazakh Pedagogical Institute, Ural'sk

PAYCHUK, N. G.; TSYGANKOV, A. A.; ZAVADSKAYA, L. G.

Question of the duration of coccidial invasion in goats. Trudy Inst. zool. AN Kazakh. SSR 16:208-210 '62. (MIRA 15:10)

(Coccidiosis) (Parasites--Goats)

TSYGANKOV, A.A.; PAYCHUK, N.G.; BALBAYEVA, Z.A.

Specificity of Coccidia of sheep, goats and saigas. Trudy Inst. zool. AN Kazakh. SSR 19:55-57 '63. (MIRA 16:9)
(Coccidium) (Ruminantia—Diseases and pests)

FUKS, B.B.; KONSTANTINOVA, I.V.; TSYGANKOV, A.P.

Immunological and histochemical study of the biosynthesis of specific antibodies induced by ribonucleic acid from the cells of immunized animals. Vest. AMN SSSR 19 no.12:28-39 '64. (MIRA 18:4)

1. Institut morfologii cheloveka AMN SSSR, Moskva.

TEITLIN, L.A. [Tseytlin, L.A.]; ELTISEVA, A.A. [Yeltysheva, A.A.]; GRAFAS, N.I.; TIGANOV, A.S. [TSyganov, A.C.]; SAFARENKO, D.I.; SAGALOVA, B.I. [Shagalova, B.I.]

Crucibles of the electric induction furnaces made of a given filling material for the melting of aluminum alloys. Analele metalurgie 16 no.4:75-80 O-D '62.

TSYGANKOV, A.F.

Methods for calculating the settlement of peat foundations of retaining dams constructed in swamps. Trudy Inst.mel.,vod.i bol.khoz.AN BSSR 6:329-337 '55. (MLRA 9:10)

(Hydraulic engineering) (Embankments)

TSYGANOV, A.I.

State of the mucosa of the maxillary sinuses in chronic rhinitis. Zhur. ush. nos. i gorl. bol. 21 no.4:46-49 Jl-Ag '61. (MIRA 15:1)

1. Iz kafedry bolezney ukha, gorla i nosa (zav. - prof. L.A.Zaritskiy) i kafedry gospital'noy terapii (zav. zasluzhennyy deyatel' nauki prof. M.A. Yasinovskiy) Odesskogo meditsinskogo instituta imeni N.I.Pirogova.

(NOSE, ACESSORY SINUSES OF) (COLD (DISEASE))
(MUCOUS MEMBRANES)

TSYGANOV, A.I., kand.med.nauk

Results of operations on the stapes in otosclerosis with ossification of the footplate. Zhur. ush., nos. i gorl. bol. 20 no.6:39-45 N-D '60.

1. Iz kafedry bolezney ukha, gorla i nosa (zav. - zasluzhennyy deyatel' nauki prof. A.I.Kolomiychenko) Kiyevskogo instituta usovershenstvovaniya vrachey.
(EAR--SURGERY) (OTOSCLEROSIS)

FUKS, B. B.; KONSTANTINOVA, I. V.; KOLAYEVA, S. G.; PSHENKOV, A. F.; SHOL'GA, V.; KRASS, P.; MAKSIMOVSKIY, L. F.

"Anti-BSA formation initiated in vivo and in vitro by ribonucleic acid from lymps nodes and spleen of immunized rabbits (histochemical, biochemical and immunological investigation)."

report submitted for 2nd Intl Cong, Histochemistry & Cytochemistry, Frankfurt, 16-21 Aug 64.

Moscow.

Dept Experimental Biology, Inst of Cytology & Genetics, AS USSR, Novosibirsk.

TSYGANKOV, A.P.

Histochemical and biochemical study of the penetration of ribonucleic acid into the cells of the lymphatic nodes of a rabbit. Vest. AMN SSSR 19 no.12:65-69 '64. (MIRA 18:4)

1. Institut morfologii cheloveka AMN SSSR, Moskva i Institut tsitologii i genetiki Sibirskogo otdeleniya AN SSSR, Novosibirsk.

TSYGANKOV, ALEKSEY STEPANOVICH

N/5
673
.T8

Calculations of ships heat exchange apparatus

RASCHETY SUDOVYKH TEPLOOBMENNYKH APPARATOV; SPRAVOCHNOYE POSOBIYE.

LENINGRAD, SUDPROMGIZ, 1948.

202 P. ILLUS., DIAGRS., GRAPHS, TABLES.

"LITERATURA": P. (203)

TSYGANKOV, A.S.; NEMCHENOK, B.A., otvetstvennyy redaktor; USOVA, A.M., tekhnicheskiy redaktor

[Water distilling equipment for ships] Sudovye vodoopresnitel'nye ustanovki. [Leningrad] Gos. izd-vo sudostroit. lit-ry, 1951. 218 p. [Microfilm] (MRIA 10:2)

(Sea-water, Distillation of)

TSYGANKOV, Aleksey Stepanovich; SERDYUKOV, S.A., nauchnyy redaktor; ALEKSEYEVA, M.N., redaktor; DLUGOKANSKAYA, Ye.A., tekhnicheskiy redaktor

[Calculations for ship heat exchangers; a reference manual] Raschety sudovykh teploobmennykh apparatov; spravochnoe posobie. Leningrad, Gos. soiuznoe izd-vo sudostroit. promyshl., 1956. 263 p. (MLRA 9:11)
(Heat exchanges)

TSYGANKOV, A.S., inzhener.

Marine MD25-50 electric distillation equipment. Sudostroenie 23 no.6:18-21 Je '57. (MLRA 10:7)
(Distillation apparatus)

TSYGANKOV, A., konstruktor; ZHUKOV, I., konstruktor

IKV 39/6M marine distillation apparatus. Mor. flot 18 no.4:13-14 Ap '58. (MIRA 12:12)

1.TSentral'noye konstruktorskoye byuro sudostroitel'noy promyshlennosti.
(Seawater, Distillation of)
(Distillation apparatus)

TSYGANKOV, A.S., inzh.; ZHUKOV, I.F., inzh.

Evaporating units used on the Antarctic whaler "Slava." Sudostroenie 24 no.4:18-20 Ap '58. (MIRA 11:4)
(Whalers) (Evaporating appliances)

TSYGANKOV, A.S., inzh.

Selecting designs for heat exchangers on ships. Sudostroenie 24 no.10:19-22 O '58. (MIRA 11:12)
(Ships--Heating and ventilation) (Heat exchangers)
(Boilers, Marine)

TSYGANKOV, A.S., inzh.

Marine condenser-cooler units. Sudostroenie 25 no.3:22-24 Mr '59. (MIRA 12:5)
(Condensers (Steam)) (Marine engineering)

MODESTOV, V.K.; [illegible], A.P.

Use of I^{132} in the study of the functional state of the thyroid gland. Trudy TSIU 71:56-60 '64. (MIRA 18:6)

1. Kafedra meditsinskoy radiologii (zav. prof. V.K. Modestov) Tsentral'nogo instituta usovershenstvovaniya vrachey.

MODESTOV, V.K.; TSYGANKOV, A.T.

Use of I^{132} for the examination of the functional state of the thyroid gland. Med. rad. 10 no.1:14-17 Ja '65. (MIRA 18:7)

1. Kafedra meditsinskoy radiologii (zav. - prof. V.K.Modestov) TSentral'nogo instituta usovershenstvovaniya vrachey, Moskva.

MODESTOV, V.K.; TSYGANKOV, A.T.

Study of the functional state of the thyroid gland by means of I^{131}-labeled triiodothyronine. Med. rad. 10 no.6:11-13 Je '65. (MIRA 18:6)

1. Kafedra meditsinskoy radiologii (zav. - prof. V.K. Modestov) Tsentral'nogo instituta usovershenstvovaniya vrachey, Moskva.

TSYGANKOV, A.V.; ALESHIN, V.M.

Large river bends of the Volga Valley portion of Volgograd Province and their connection with recent tectonic movements. Iz. AN SSSR Ser. geog. no.6:80-84 N-D '64 (MIRA 18:1)

1. Volgogradskiy nauchno-issledovatel'skiy institut nefti i gaza.

TSYGANKOV, A.V.; ALESHIN, V.M.

History of the formation of leveling surfaces on the right bank of the Volga in Volgograd Province. Dokl. AN SSSR 154 no.2:352-354 Ja'64. (MIRA 17:2)

1. Volgogradskiy nauchno-issledovatel'skiy institut neftyanoy i gazovoy promyshlennosti. Predstavleno akademikom D.I. Shcherbakovym.

GORELOV, S.K.; TSYGANKOV, A.V.

Conference on the methodology of studying recent tectonic movements. Izv. AN SSSR. Ser. geog. no.5:119-120 S-O '64. (MIRA 17:11)

TSYGANKOV, A. V.

"Geomorphology of the Region Between the Rivers Khoper and Medveditsa in Stalingradskaya Oblast." Sand Geog Sci, Voronezh U, Voronezh, 1954. (RZhGeol, Sep 54)

SO: Sum 432, 29 Mar 55

TSYGANKOV, A.V.

Basic characteristics of the morphostructure of the lower Volga Valley. Trudy VNIING no.1:141-178 '62. (MIRA 16:10)

MARKIN, P.V.; NAYDIS, V.A.; TSYGANKOV, A.V.; MIKHEYEV, Yu.Ye.; STRELNIKOV, P.I.

"Electric equipment for machine tools" by I.V.Kharizomenov. Reviewed by P.V.Markin and others. Stan.i instr. 30 no.4: 43-44 Ap '59. (MIRA 12:6)

1. Eksperimental'nyy nauchno-issledovatel'skiy institut metallorezhushchikh stankov (for Markin, Naydis). 2. Spetsial'noye konstruktorskoye byuro - 6 (for TSygankov). 3. Moskovskiy zavod vnutrishlifoval'nykh stankov (for Mikheyev). 4. Spetsial'noye konstruktorskoye byuro - 1 (for Strel'nikov).
(Machine tools--Electric driving)
(Kharizomenov, I.V.)

TSYGANKOV, A.V., dotsent

Practical significance of geomorphological studies to the petroleum geology and agriculture of the Volga Valley portion of Stalingrad Province. Uch. zap. Volg. gos. ped. inst. no.10:121-131 '59. (MIRA 14:11)

(Volgograd Province--Geomorphology)
(Volgograd Province--Petroleum geology)
(Volgograd Province--Agriculture)

TSYGANKOV, A.V., kand.geograficheskikh nauk, dotsent

The [illegible]-forming rocks of the lower Volga Valley. Uch. zap. Volg. gos. ped. inst. no.10:54-74 '59. (MIRA 14:2)
(Volga Valley--Geomorphology)

TSYGANKOV, A.V., dotsent

Causes of linear erosion and its quantitative features in the lower Volga Valley. Uch. zap. Volg. gos. ped. inst. no.10:237-241 '59. (MIRA 14:11)

(Volga Valley--Erosion)

L 38383-66 EWT(1) GW

ACC NR: AT6011147 SOURCE CODE: UR/3197/65/000/002/0209/0216

AUTHOR: Tsygankov, A. V.; Aleshin, V. M.; Cherkasov, G. I. 22 61

ORG: none

TITLE: Multidiscipline study of the most recent and contemporary movements of the earth's crust in the Lower Volga region

SOURCE: AN EstSSR. Institut fiziki i astronomii. Sovremennyye dvizheniya zemnoy kory. Recent crustal movements, no. 2, 1965, 209-216

TOPIC TAGS: structural geology, tectonic movements, geodetic ~~leveling~~ survey

ABSTRACT: The most recent and contemporary tectonic movements of the earth's crust play a leading role in the formation of relief and structure and also in the control of geomorphological processes taking place on the earth's surface. These movements result from the displacement along faults of blocks of the crystalline basement. A direct relationship between qualitative and quantitative criteria is established which can be used to corroborate the correctness of certain conclusions. Regional study of these crustal movements makes it possible to detect large geotectonic elements caused by movements of blocks in the basement. Zones of local uplift and subsidence can be identified against the regional background of uplifts and subsidences, using multidiscipline structural-geomorphological methods and repeated leveling. Inadequate assessment of the role of the most recent and contemporary

Card 1/2 UDC: 550.342